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(71) Applicant (for all designated States except US): **PEARSON TECHNOLOGIES, INC.** [US/US]; 20088 Norm
Connell Drive, Aberdeen, MS 39730 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PEARSON, Stanley, R.** [US/US]; 544 S. Lakeview Drive, Baton Rouge, LA
70810-4631 (US).

(74) Agent: **DOLCE, Marcus, P.**; Price, Heneveld, Cooper,
DeWitt & Litton, LLP, 695 Kenmoor, S.E., P.O. Box 2567,
Grand Rapids, MI 49501-2567 (US).

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(54) Title: PROCESS AND APPARATUS FOR THE PRODUCTION OF USEFUL PRODUCTS FROM CARBONACEOUS
FEEDSTOCK

(57) Abstract: A carbonaceous feedstock to alcohol conversion process in which carbon dioxide is removed from the syngas stream
issuing from a feedstock reformer, to yield a carbon dioxide depleted syngas stream including hydrogen, carbon monoxide and
methane. This carbon dioxide depleted syngas stream is then passed through a Fischer-Tropsch reactor ultimately yielding a mixed
alcohol product which is preferably largely ethanol. The removed carbon dioxide stream is passed through a methane reformer
along with methane, which is produced in or has passed through a Fischer-Tropsch reactor, to yield primarily carbon monoxide and
hydrogen. The carbon monoxide and hydrogen stream from the methane reformer are passed through the alcohol reactor. Also
disclosed are a unique catalyst, a method for controlling the content of the syngas formed in the feedstock reformer, and a feedstock
handling system.



WO 2005/021421 A3